APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,204	03/17/2004	Alan Weber	34815	3768

7590 11/09/2007	EXAMINER
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Kansas City, MO 64108	4135

MAIL DATE	DELIVERY MODE
11/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/802,204	WEBER, ALAN
	Examiner	Art Unit	
	Vei-Chung Liang	4135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☒ Claim(s) *39* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 March 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This is in response to application filed on March 17, 2004 in which claims 1 – 41 are

presented for examination.

Status of Claims

Claims 1 - 41 are pending, of which **Claims 1, 12, 20, 27, and 35** are in independent

form.

Drawings

1.   The drawings are objected to because:

The features in **Fig. 1** associated with reference number **"12, 10"** are unlabeled

geometries. It is not enough for the reference number alone to indicate what the

unlabeled geometries represent.

Any structural detail that is essential for a proper understanding of the disclosed

invention should be shown in the drawing. MPEP § 608.02(d).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

2.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4)

because reference character "**28**" has been used to designate both "Subscribed to

Symphony Last Year?" (Fig. 3) and "First indicator" (Fig. 4).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. Each drawing sheet

submitted after the filing date of an application must be labeled in the top margin as

either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the

changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings

will not be held in abeyance.

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they do not include the following reference sign(s) mentioned in the

description: **18** (page 8, line 29; page 11, line 24; page 11, line 27; page 12, line 5 – 6,

26; page 13, line 6, 8, 11, 25), **22** (page 9, line 1; page 12, line 11, 22, 23, 26; page 13,

line 6, 8, 11, 25), **24** (page 9, line 3; page 13, line 30; page 14, line 15, 23;), **30** (page

11, line 2), **38** (page 14, line 3).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. Each drawing sheet

submitted after the filing date of an application must be labeled in the top margin as

either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the

changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings

will not be held in abeyance.

In addition to Replacement Sheets containing the corrected drawing figure(s),

applicant is required to submit a marked-up copy of each Replacement Sheet including

annotations indicating the changes made to the previous version. The marked-up copy

must be clearly labeled as "Annotated Sheets" and must be presented in the

amendment or remarks section that explains the change(s) to the drawings. See 37

CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy

will result in the abandonment of the application. In addition to Replacement Sheets

containing the corrected drawing figure(s), applicant is required to submit a marked-up

copy of each Replacement Sheet including annotations indicating the changes made to

the previous version. The marked-up copy must be clearly labeled as "Annotated

Sheets" and must be presented in the amendment or remarks section that explains the

change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the

proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

4.   The abstract of the disclosure is objected to because:

(a) The total number of words in the abstract exceeds the limitation of 150 words.

(b) Reference characters **24** referring to a statically predicative segmentation

model, **18** referring to a first identifier, and **22** referring to a second identifier

cannot be found in the drawings.

(c) The abstract of the disclosure is objected to because the abstract contains

only two sentences. The abstract should be in narrative form; however, two

sentences are not narrative.

Correction is required. See MPEP § 608.01(b).

5.   The disclosure is objected to because of the following informalities:

(a)   Reference number **28** has been recited to refer to a statistically predicative

segmentation model (page 8, line 4), an indicator (page 10, line 4), and a first

identifier (Fig. 4). A reference number should be used to refer to a single article

or procedure step. Reference number 28 should be used to refer to a single

feature of the invention.

(b) Reference number **24** has been recited to refer to a segmentation model

(page 14, line 15, line 22), and a plurality of nodes (page 14, line 16, 23). A

reference number should be used to refer to a single article or procedure step.

Reference number 24 should be used to refer to a single feature of the invention.

(c) The specification recites step 116 in Fig. 6 (page 15, line 17); however, step

116 is displayed in Fig. 5.

(d) The specification recites nodes **34** (page 17, line 26); however, the

specification also recites nodes **24** (page 14, line 16, 23). The reference number

should maintain consistency and refer to the same feature using the same label

through out the entire disclosure.

Appropriate correction is required.

6.   The use of the trademark WINDOWS NT, NOVEL NETWARE, UNIX has been

noted in this application. It should be capitalized wherever it appears and be

accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the

proprietary nature of the marks should be respected and every effort made to prevent

their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

7.   Claim 39 is objected to under 37 CFR 1.75(c), as being of improper dependent

form for failing to further limit the subject matter of a previous claim. Applicant is

required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper

dependent form, or rewrite the claim(s) in independent form.

As per Claim 39, Claim 39 recites the limitation of each entry includes contact

data. However, such limitation has already been recited in its parent claim 35 (Claim 35,

line 4). Thus, no further limitation of the subject matter has been made.

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

1.   Claims 6, 14, 22, and 29 are rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

As per Claim 6, Claim 6 is directed to a method; but Claim 6 is also directed to a

computer program stored on a computer readable medium. Referencing a method step

as an option for a system component results in confusion and renders Claim 6 vague

and indefinite.

As per Claim 14, Claim 14 is directed to a method; but Claim 14 is also directed to a computer program stored on a computer readable medium. Referencing a method step as an option for a system component results in confusion and renders Claim 6 vague and indefinite.

As per Claim 22, Claim 22 is directed to a method; but Claim 22 is also directed to a computer program stored on a computer readable medium. Referencing a method step as an option for a system component results in confusion and renders Claim 6 vague and indefinite.

As per Claim 29, Claim 29 is directed to a method; but Claim 29 is also directed to a computer program stored on a computer readable medium. Referencing a method step as an option for a system component results in confusion and renders Claim 6 vague and indefinite.

Claim Rejections - 35 USC § 101

9.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2.   Claims 1 – 34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims lack a useful, concrete, and tangible result within the meaning of 35 USC 101.

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus, or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 101 judicial exception, in that the process claim must set forth a practical application of that 101 judicial exception to produce a real-world result. Providing a benefit to the recipient if the recipient has performed the activity does not produce a real-world result and is clearly just an abstract idea. Therefore the claims do not provide a tangible result.

In view of the above analysis, applicant's claims are processes, which include a judicial exception therein. Upon review of the claims as a whole, there is no transformation nor do the claims produce a useful, concrete, and tangible result. Accordingly, the claims are non-statutory under 35 U.S.C. 101.

As per Claim 1, Claim 1 recites the limitation of accessing entries, coding identifiers, utilizing statistical model to categorize entries into groups, and identifying groups, which does not produce any tangible result.

The dependent claims, claims 2 – 11, included in the statement of rejection but not specifically addressed in the body of the rejection have inherited the deficiencies of their parent claim and have not resolved the deficiencies. Therefore, they are rejected based on the same rationale as applied to their parent claim above.

As per Claim 12, Claim 12 recites the limitation of accessing entries, coding

identifiers, utilizing statistical model to categorize entries into groups, and identifying

groups, which does not produce any tangible result.

The dependent claims, claims 13 - 19, included in the statement of rejection but

not specifically addressed in the body of the rejection have inherited the deficiencies of

their parent claim and have not resolved the deficiencies. Therefore, they are rejected

based on the same rationale as applied to their parent claim above.

As per Claim 20, Claim 20 recites the limitation of accessing entries, coding

identifiers, utilizing statistical model to categorize entries into groups, and identifying

groups, which does not produce any tangible result.

The dependent claims, claims 21 - 26, included in the statement of rejection but

not specifically addressed in the body of the rejection have inherited the deficiencies of

their parent claim and have not resolved the deficiencies. Therefore, they are rejected

based on the same rationale as applied to their parent claim above.

As per Claim 27, Claim 27 recites the limitation of accessing entries, coding

identifiers, utilizing statistical model to categorize entries into groups, and identifying

groups, which does not produce any tangible result.

The dependent claims, claims 28 - 34, included in the statement of rejection but

not specifically addressed in the body of the rejection have inherited the deficiencies of

their parent claim and have not resolved the deficiencies. Therefore, they are rejected

based on the same rationale as applied to their parent claim above.

10.   Claims 6, 14, 22, and 29 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to neither a process nor a system, but rather embraces or overlaps

two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so

as to set forth the statutory classes of invention in the alternative only.

As per Claim 6, Claim 6 further limiting a method to be implemented by a

computer program stored on a computer-readable medium. The claim thus directed to

neither a process nor a system.

As per Claim 14, Claim 14 further limiting a method to be implemented by a

computer program stored on a computer-readable medium. The claim thus directed to

neither a process nor a system.

As per Claim 22, Claim 22 further limiting a method to be implemented by a

computer program stored on a computer-readable medium. The claim thus directed to

neither a process nor a system.

As per Claim 29, Claim 29 further limiting a method to be implemented by a computer program stored on a computer-readable medium. The claim thus directed to neither a process nor a system.

11.   Claims 6,14, 22, 29, and 35 – 41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per Claim 6, Claim 6 discloses a computer program stored on a computer-readable medium for operating a host computer. However, a computer readable medium is defined in the specification as any means that can contain, store, communicate, propagate or transport the program for use by or in connection with the instruction executing system (page 7, lines 28 – 30). The broadest interpretation of a computer readable medium can be a propagation medium which can also take the form of carrier waves, i.e. electromagnetic waves that can be modulated, as in frequency, amplitude, or phase, to transmit or propagate information signals. As such, Claim 6 as written and in view of Applicant's disclosure is not limited to a statutory subject matter and is therefor non-statutory.

As per Claim 14, Claim 14 discloses a computer program stored on a computer-readable medium for operating a host computer. However, a computer readable medium is defined in the specification as any means that can contain, store, communicate, propagate or transport the program for use by or in connection with the

instruction executing system (page 7, lines 28 – 30). The broadest interpretation of a computer readable medium can be a propagation medium which can also take the form of carrier waves, i.e. electromagnetic waves that can be modulated, as in frequency, amplitude, or phase, to transmit or propagate information signals. As such, Claim 14 as written and in view of Applicant's disclosure is not limited to a statutory subject matter and is therefor non-statutory.

As per Claim 22, Claim 22 discloses a computer program stored on a computer-readable medium for operating a host computer. However, a computer readable medium is defined in the specification as any means that can contain, store, communicate, propagate or transport the program for use by or in connection with the instruction executing system (page 7, lines 28 – 30). The broadest interpretation of a computer readable medium can be a propagation medium which can also take the form of carrier waves, i.e. electromagnetic waves that can be modulated, as in frequency, amplitude, or phase, to transmit or propagate information signals. As such, Claim 22 as written and in view of Applicant's disclosure is not limited to a statutory subject matter and is therefor non-statutory.

As per Claim 29, Claim 29 discloses a computer program stored on a computer-readable medium for operating a host computer. However, a computer readable medium is defined in the specification as any means that can contain, store, communicate, propagate or transport the program for use by or in connection with the

instruction executing system (page 7, lines 28 – 30). The broadest interpretation of a computer readable medium can be a propagation medium which can also take the form of carrier waves, i.e. electromagnetic waves that can be modulated, as in frequency, amplitude, or phase, to transmit or propagate information signals. As such, Claim 29 as written and in view of Applicant's disclosure is not limited to a statutory subject matter and is therefor non-statutory.

As per Claim 35, Claim 35 discloses a computer program stored on a computer-readable medium for operating a host computer. However, a computer readable medium is defined in the specification as any means that can contain, store, communicate, propagate or transport the program for use by or in connection with the instruction executing system (page 7, lines 28 – 30). The broadest interpretation of a computer readable medium can be a propagation medium which can also take the form of carrier waves, i.e. electromagnetic waves that can be modulated, as in frequency, amplitude, or phase, to transmit or propagate information signals. As such, Claim 35 as written and in view of Applicant's disclosure is not limited to a statutory subject matter and is therefor non-statutory.

The dependent claims, claims 36 - 41, included in the statement of reject but not specifically addressed in the body of the rejection have inherited the deficiencies of their parent claim and have not resolved the deficiencies. Therefore, they are rejected based on the same rationale as applied to their parent claim above.

Claim Rejections - 35 USC § 102

12.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13.   Claims 1 – 6, 8 – 14, 16 – 20, 22 – 27, 29 – 30, 32 – 35, 37 - 41 are rejected

under 35 U.S.C. 102(b) as being anticipated by Lazarus et al. US 6,430,539 B1

(hereinafter referred as Lazarus).

As per Claim 1, Lazarus discloses "a method for efficiently identifying at least

one group having a desired characteristic" as creating meaningful grouping of

merchants which accurately reflect underlying consumer interests (Lazarus, column 3,

lines 3 – 7).

Lazarus discloses "accessing a plurality of entries" as the system operates on

consumer profiles in profile database (Lazarus, column 10, lines 22 – 26).

Lazarus discloses "coding each entry with a first identifier representing the

number of times the entry has participated in an activity" as input variable includes

number of transaction by a consumer in the input window preceding the end-data for all

segments (Lazarus, column 30, lines 4 – 6).

Lazarus discloses "coding each entry with a second identifier representing the

recency of the entry's participation in the activity" as input variable includes recency of

the consumer in any segment (Lazarus, column 29, line 66 – column 30, line 3).

Lazarus discloses "utilizing a statistically predictive segmentation model to categorize the entries into groups based on the coding of the entries" as other types of predictive model may be used; for example, linear regression model (Lazarus, column 31, lines 36 – 38) to associate consumer with merchants (Lazarus, column 3, lines 3 – 7).

Lazarus discloses "identifying which group includes a desired characteristic based on the categorization of the groups" as a membership value is calculated by a membership function to identify the segments with which the consumer is mostly closely associated (Lazarus, column 31, lines 63 - 67).

As per Claim 2, and also applied to Claim 1, Lazarus discloses "wherein the first identifier represents the number of times the entry has participated in a plurality of activities" as input variable includes the number of transactions in a collection of merchants (Lazarus, column 30, lines 45 – 48).

As per Claim 3, and also applied to Claim 2, Lazarus discloses "wherein the second identifier represents the recency of the entry's participation in the plurality of activities" as input variable includes recency in a collection of merchants (Lazarus, column 30, lines 39 – 44).

As per Claim 4, and also applied to Claim 1, Lazarus discloses "wherein each

entry includes contact data" as state code and zip code are included in the customer

summary file (Lazarus, column 13, lines 15 – 34).

As per Claim 5, and also applied to Claim 4, Lazarus discloses "wherein the

contact data comprises an indication of the entry's participation in a plurality of activities,

the number of times the entry has participated in each activity, and the recency of the

entry's participation each activity" as input variables includes recency and frequency for

all merchants for a consumer (Lazarus, column 29, line 65 – column 30 line 6).

As per Claim 6, and also applied to Claim 1, Lazarus discloses "wherein at

least one part of the method is implemented by a computer program stored on a

computer-readable medium for operating a host computer" as the invention as a

computer program product (Lazarus, column 6, line 42).

As per Claim 8, and also applied to Claim 1, Lazarus discloses "wherein each

entry is coded with a third identifier representing the amount the entry has spent on the

activity" as input variable includes money spent by a customer for all segments

(Lazarus, column 30, lines 7 – 10).

As per Claim 9, and also applied to Claim 1, Lazarus discloses "wherein each

entry is coded with a third identifier representing the entry's demographic data" as

customer summary file includes demographic information about the customer (Lazarus,

column 12, lines 54 – 54).

As per Claim 10, and also applied to Claim 9, Lazarus discloses "wherein the

demographic data is selected from the group consisting of: the entry's age; the entry's

income; the entry's geographic location, and the entry's gender" as demographic fields

include age, gender, income, and geographic region (Lazarus, column 12, lines 60 – 62;

column 13, lines 12 –13).

As per Claim 11, and also applied to Claim 1, Lazarus discloses "wherein the

statistically predictive segmentation model categorizes the entries into groups based on

the coding of the entries and a rule set" as predication is based on input variables and

membership function (Lazarus, column 29, line 65; column 31, line 61 – column 32, line

2) and on specifying a population count for a segment (Lazarus, column 37, lines 44 –

46).

As per Claim 12, Lazarus discloses "a method for efficiently identifying at least

one group having a desired characteristic" as creating meaningful grouping of

merchants which accurately reflect underlying consumer interests (Lazarus, column 3,

lines 3 – 7).

Lazarus discloses "accessing a database including a plurality of entries having contact data" as the system operates on consumer profiles in profile database (Lazarus, column 10, lines 22 – 26).

Lazarus discloses "coding each entry with a plurality of first identifiers representing the number of times the entry has participated in a plurality of activities" as input variable includes the number of transactions in a collection of merchants (Lazarus, column 30, lines 45 – 48).

Lazarus discloses "coding each entry with a plurality of second identifiers representing the recency of the entry's participation in the plurality of activities" as input variable includes recency in a collection of merchants (Lazarus, column 30, lines 39 – 44).

Lazarus discloses "utilizing a statistically predictive segmentation model to categorize the entries into groups based on the coding of the entries" as other types of predictive model may be used; for example, linear regression model (Lazarus, column 31, lines 36 – 38) to associate consumer with merchants (Lazarus, column 3, lines 3 – 7).

Lazarus discloses "identifying which group includes a desired characteristic based on the categorization of the groups" as a membership value is calculated by a membership function to identify the segments with which the consumer is mostly closely associated (Lazarus, column 31, lines 63 - 67).

As per Claim 13, and also applied to Claim 12, Lazarus discloses "wherein the contact data comprises an indication of each entry's participation in a plurality of activities, the number of times each entry has participated in each activity, and the recency of each entry's participation each activity" as input variables includes recency and frequency for all merchants for a consumer (Lazarus, column 29, line 65 – column 30 line 6).

As per Claim 14, and also applied to Claim 12, Lazarus discloses "wherein at least one part of the method is implemented by a computer program stored on a computer-readable medium for operating a host computer" as as the invention as a computer program product (Lazarus, column 6, line 42).

As per Claim 16, and also applied to Claim 12, Lazarus discloses "wherein each entry is coded with a third identifier representing the amount the entry has spent on the activities" as input variable includes money spent by a customer for all segments (Lazarus, column 30, lines 7 – 10).

As per Claim 17, and also applied to Claim 16, Lazarus discloses "wherein each entry is coded with a fourth identifier representing the total number of activities the entry has participated in" as total number of purchase can be used to calculated consumer vector (Lazarus, column 28, line 10).

As per Claim 18, and also applied to Claim 17, Lazarus discloses "wherein each entry is coded with a fifth identifier representing the entry's demographic data, wherein the demographic data is selected from the group consisting of: the entry's age; the entry's income; the entry's geographic location, and the entry's gender" as customer summary file includes demographic information about the customer (Lazarus, column 12, lines 54 – 54) and demographic fields include age, gender, income, and geographic region (Lazarus, column 12, lines 60 – 62; column 13, lines 12 –13).

As per Claim 19, and also applied to Claim 12, Lazarus discloses "wherein the statistically predictive segmentation model categorizes the entries into groups based on the coding of the entries and a rule set" as predication is based on input variables and membership function (Lazarus, column 29, line 65; column 31, line 61 – column 32, line 2) and on specifying a population count for a segment (Lazarus, column 37, lines 44 – 46).

As per Claim 20, Lazarus discloses "a method for efficiently identifying at least one group having a desired characteristic" as creating meaningful grouping of merchants which accurately reflect underlying consumer interests (Lazarus, column 3, lines 3 – 7).

Lazarus discloses "accessing a database having a plurality of entries" as the system operates on consumer profiles in profile database (Lazarus, column 10, lines 22 – 26).

Lazarus discloses "wherein each entry includes contact data comprising the number of times the entry has participated in a plurality of activities" as input variable includes the number of transactions in a collection of merchants (Lazarus, column 30, lines 45 – 48).

Lazarus discloses "the number of times the entry has participated in each activity" as input variable includes number of transaction by a consumer in the input window preceding the end-data for all segments (Lazarus, column 30, lines 4 – 6).

Lazarus discloses "the recency of the entry's participation each activity" as input variable includes recency of the consumer in any segment (Lazarus, column 29, line 66 – column 30, line 3).

Lazarus discloses "coding each entry with a plurality of first identifiers representing the number of times the entry has participated in each activity" as input variable includes number of transaction by a consumer in the input window preceding the end-data for all segments (Lazarus, column 30, lines 4 – 6).

Lazarus discloses "coding each entry with a plurality of second identifiers representing the recency of the entry's participation in each activity" as input variable includes recency of the consumer in any segment (Lazarus, column 29, line 66 – column 30, line 3).

Lazarus discloses "utilizing a statistically predictive segmentation model to create a plurality of groups by segmenting the entries based on the coding of the entries" as other types of predictive model may be used; for example, linear regression model

(Lazarus, column 31, lines 36 – 38) to associate consumer with merchants (Lazarus, column 3, lines 3 – 7).

Lazarus discloses "identifying which group includes a desired characteristic based on the categorization of the groups" as a membership value is calculated by a membership function to identify the segments with which the consumer is mostly closely associated (Lazarus, column 31, lines 63 - 67).

As per Claim 22, and also applied to Claim 20, Lazarus discloses "wherein at least one part of the method is implemented by a computer program stored on a computer-readable medium for operating a host computer" as the invention as a computer program product (Lazarus, column 6, line 42).

As per Claim 23, and also applied to Claim 20, Lazarus discloses "wherein each entry is coded with a plurality of third identifiers representing the amount the entry has spent on each activity" as input variable includes money spent by a customer for all segments (Lazarus, column 30, lines 7 – 10).

As per Claim 24, and also applied to Claim 23, Lazarus discloses "wherein each entry is coded with a plurality of fourth identifiers representing the number of times the entry has participated in the plurality of activities" as input variable includes recency in a collection of merchants (Lazarus, column 30, lines 39 – 44).

As per Claim 25, and also applied to Claim 24, Lazarus discloses "wherein

each entry is coded with a plurality of fifth identifiers representing the entry's

demographic data, wherein the demographic data is selected from the group consisting

of: the entry's age; the entry's income; the entry's geographic location, and the entry's

gender" as customer summary file includes demographic information about the

customer (Lazarus, column 12, lines 54 – 54) and demographic fields include age,

gender, income, and geographic region (Lazarus, column 12, lines 60 – 62; column 13,

lines 12 –13).

As per Claim 26, and also applied to Claim 25, Lazarus discloses "wherein the

statistically predictive segmentation model categorizes the entries into groups based on

the coding of the entries and a rule set" as predication is based on input variables and

membership function (Lazarus, column 29, line 65; column 31, line 61 – column 32, line

2) and on specifying a population count for a segment (Lazarus, column 37, lines 44 –

46).

As per Claim 27, Lazarus discloses "a method for efficiently identifying at least

one group having a desired characteristic" as creating meaningful grouping of

merchants which accurately reflect underlying consumer interests (Lazarus, column 3,

lines 3 – 7).

Lazarus discloses "accessing a database including a plurality of entries" as the system operates on consumer profiles in profile database (Lazarus, column 10, lines 22 – 26).

Lazarus discloses "wherein each entry includes contact data comprising the number of times the entry has participated in a plurality of activities" as input variable includes the number of transactions in a collection of merchants (Lazarus, column 30, lines 45 – 48).

Lazarus discloses "the number of times the entry has participated in each activity" as input variable includes number of transaction by a consumer in the input window preceding the end-data for all segments (Lazarus, column 30, lines 4 – 6).

Lazarus discloses "the recency of the entry's participation in each activity" as input variable includes number of transaction by a consumer in the input window preceding the end-data for all segments (Lazarus, column 30, lines 4 – 6).

Lazarus discloses "the amount spent by the entry on each activity" as input variable includes money spent by a customer for all segments (Lazarus, column 30, lines 7 – 10).

Lazarus discloses "demographic data" as customer summary file includes demographic information about the customer (Lazarus, column 12, lines 54 – 54).

Lazarus discloses "coding each entry with a plurality of first identifiers representing the number of times the entry has participated in each activity" as input variable includes number of transaction by a consumer in the input window preceding the end-data for all segments (Lazarus, column 30, lines 4 – 6).

Lazarus discloses "coding each entry with a plurality of second identifiers representing the recency of the entry's participation in each activity" as input variable includes recency of the consumer in any segment (Lazarus, column 29, line 66 – column 30, line 3).

Lazarus discloses "utilizing a statistically predictive segmentation model to create a plurality of groups by segmenting the entries based on the coding of the entries and a rule set" as other types of predictive model may be used; for example, linear regression model (Lazarus, column 31, lines 36 – 38) to associate consumer with merchants and the predication is based on input variables and membership function (Lazarus, column 29, line 65; column 31, line 61 – column 32, line 2) and on specifying a population count for a segment (Lazarus, column 37, lines 44 – 46).

Lazarus discloses "identifying which groups have a desired characteristic based on the categorization of the groups" as a membership value is calculated by a membership function to identify the segments with which the consumer is mostly closely associated (Lazarus, column 31, lines 63 - 67).

As per Claim 29, and also applied to Claim 27, Lazarus discloses "wherein at least one part of the method is implemented by a computer program stored on a computer-readable medium for operating a host computer" as the invention as a computer program product (Lazarus, column 6, line 42).

As per Claim 30 and also applied to Claim 27, Lazarus discloses "wherein the desired characteristic is a minimum percentage of previous purchases by the entries within each group" as the top 5% scores population on spending will be in the segment but not the one below 95th percent (Lazarus, column 37, lines 20 – 26).

As per Claim 32, and also applied to Claim 27, Lazarus discloses "wherein each entry is coded with a plurality of third identifiers representing the amount the entry has spent on each activity" as input variable includes money spent by a customer for all segments (Lazarus, column 30, lines 7 – 10).

As per Claim 33, and also applied to Claim 32, Lazarus discloses "wherein each entry is coded with a plurality of fourth identifiers representing the number of times the entry has participated in the plurality of activities" as input variable includes the number of transactions in a collection of merchants (Lazarus, column 30, lines 45 – 48).

As per Claim 34, and also applied to Claim 33, Lazarus discloses "wherein each entry is coded with a plurality of fifth identifiers representing the entry's demographic data" as customer summary file includes demographic information about the customer (Lazarus, column 12, lines 54 – 54).

Lazarus also discloses "wherein the demographic data is selected from the group consisting of: the entry's age; the entry's income; the entry's geographic location, and

the entry's gender" as demographic fields include age, gender, income, and geographic

region (Lazarus, column 12, lines 60 – 62; column 13, lines 12 –13)

As per Claim 35, Lazarus discloses "A computer program stored on a computer-

readable medium for operating a host computer" as the invention as a computer

program product (Lazarus, column 6, line 42).

Lazarus discloses "a code segment executed by the host computer for accessing

a database including a plurality of entries having contact data" as the system operates

on consumer profiles in profile database (Lazarus, column 10, lines 22 – 26).

Lazarus discloses "a code segment executed by the host computer for coding

each entry with a first identifier representing the number of times the entry has

participated in an activity" as input variable includes number of transaction by a

consumer in the input window preceding the end-data for all segments (Lazarus,

column 30, lines 4 – 6).

Lazarus discloses "a code segment executed by the host computer for coding

each entry with a second identifier representing the recency of the entry's participation

in the activity" as input variable includes recency of the consumer in any segment

(Lazarus, column 29, line 66 – column 30, line 3).

Lazarus discloses "a code segment executed by the host computer utilizing a

statistically predictive segmentation model to group the entries based on the coding of

the entries and determine which group includes a desired characteristic based on the

categorization of the groups" as predictive model may be used; for example, linear

regression model (Lazarus, column 31, lines 36 – 38) to associate consumer with

merchants and the predication is based on input variables and membership function

(Lazarus, column 29, line 65; column 31, line 61 – column 32, line 2).

As per Claim 37, and also applied to Claim 35, Lazarus discloses "wherein the

first identifier represents the number of times the entry has participated in a plurality of

activities" as input variable includes the number of transactions in a collection of

merchants (Lazarus, column 30, lines 45 – 48).

As per Claim 38 and also applied to Claim 35, Lazarus discloses "wherein the

second identifier represents the recency of the entry's participation in the plurality of

activities" as input variable includes recency in a collection of merchants (Lazarus,

column 30, lines 39 – 44).

As per Claim 39, and also applied to Claim 35, Lazarus discloses "wherein

each entry includes contact data" as state code and zip code are included in the

customer summary file (Lazarus, column 13, lines 15 – 34).

As per Claim 40, and also applied to Claim 39, Lazarus discloses "wherein the

contact data comprises an indication of the entry's participation in a plurality of activities,

the number of times the entry has participated in each activity, and the recency of the

entry's participation each activity" as input variables includes recency and frequency for all merchants for a consumer (Lazarus, column 29, line 65 – column 30 line 6).

As per Claim 41, and also applied to claim 35, Lazarus discloses "wherein the statistically predictive segmentation model categorizes the entries into groups based on the coding of the entries and a rule set" as predication is based on input variables and membership function (Lazarus, column 29, line 65; column 31, line 61 – column 32, line 2) and on specifying a population count for a segment (Lazarus, column 37, lines 44 – 46).

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15.   Claims 7, 15, 21, 28, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lazarus et al. US 6,430,539 B1 (hereinafter referred as Lazarus) in view of Downey et al. US 2006/0190318 A1 (hereinafter referred as Downey).

As per Claim 7, and also applied to Claim 1, Lazarus does not discloses the limitation of "wherein the statistically predictive segmentation model is selected from the group consisting of: Chi-Square Automatic Interaction Detection (CHAID); Exhaustive CHAID; and Classification and Regression Tree (C&RT)".

On the other hand, Downey discloses such limitation as Exhaustive CHAID (Downey, paragraph 0040, lines 1 – 3), regular (CHAID) and C&RT (Downey, paragraph 0043, lines 1 – 2) can be used to measure market system (Downey, paragraph 0023, lines 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lazarus' invention to use CHAID, exhaustive CHAID, and C&RT as predictive model in view of Downey. Doing so would provide advantages such as a means for effectively predict consumer behaviors in a market segment.

As per Claim 15 and also applied to Claim 12, Lazarus does not disclose the limitation of "wherein the statistically predictive segmentation model is selected from the group consisting of: Chi-Square Automatic Interaction Detection (CHAID); Exhaustive CHAID; and Classification and Regression Tree (C&RT)".

On the other hand, Downey discloses such limitation as Exhaustive CHAID (Downey, paragraph 0040, lines 1 – 3), regular (CHAID) and C&RT (Downey, paragraph 0043, lines 1 – 2) can be used to measure market system (Downey, paragraph 0023, lines 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lazarus' invention to use CHAID, exhaustive CHAID, and C&RT as predictive model in view of Downey. Doing so would provide advantages such as a means for effectively predict consumer behaviors in a market segment.

As per Claim 21, and also applied to Claim 20, Lazarus does not disclose the limitation of "wherein the statistically predictive segmentation model is selected from the group consisting of: Chi-Square Automatic Interaction Detection (CHAID); Exhaustive CHAID; and Classification and Regression Tree (C&RT)".

On the other hand, Downey discloses such limitation as Exhaustive CHAID (Downey, paragraph 0040, lines 1 – 3), regular (CHAID) and C&RT (Downey, paragraph 0043, lines 1 – 2) can be used to measure market system (Downey, paragraph 0023, lines 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lazarus' invention to use CHAID, exhaustive CHAID, and C&RT as predictive model in view of Downey. Doing so would provide advantages such as a means for effectively predict consumer behaviors in a market segment.

As per Claim 28, and also applied to Claim 27, Lazarus does not disclose the limitation of "wherein the statistically predictive segmentation model is selected from the group consisting of: Chi-Square Automatic Interaction Detection (CHAID); Exhaustive CHAID; and Classification and Regression Tree (C&RT)".

On the other hand, Downey discloses such limitation as Exhaustive CHAID (Downey, paragraph 0040, lines 1 – 3), regular (CHAID) and C&RT (Downey, paragraph 0043, lines 1 – 2) can be used to measure market system (Downey, paragraph 0023, lines 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lazarus' invention to use CHAID, exhaustive CHAID, and C&RT as predictive model in view of Downey. Doing so would provide advantages such as a means for effectively predict consumer behaviors in a market segment.

As per Claim 36, and also applied to Claim 35 Lazarus does not disclose the limitation of "wherein the statistically predictive segmentation model is selected from the group consisting of: Chi-Square Automatic Interaction Detection (CHAID); Exhaustive CHAID; and Classification and Regression Tree (C&RT)".

On the other hand, Downey discloses such limitation as Exhaustive CHAID (Downey, paragraph 0040, lines 1 – 3), regular (CHAID) and C&RT (Downey, paragraph 0043, lines 1 – 2) can be used to measure market system (Downey, paragraph 0023, lines 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lazarus' invention to use CHAID, exhaustive CHAID, and C&RT as predictive model in view of Downey. Doing so would provide advantages such as a means for effectively predict consumer behaviors in a market segment.

16.   Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lazarus et al. US 6,430,539 B1 (hereinafter referred as Lazarus) in view of Eldering et al. US PGPub 2002/0123928 A1 (hereinafter referred as Eldering)

As per Claim 31, and also applied to Claim 27, Lazarus does not disclose the limitation of "wherein the desired characteristic is a minimum percentage of previous subscriptions by the entries within each group".

On the other hand, Eldering discloses such limitation as categorizing based on the subscriber's viewing rate over 30% of the time (Eldering, paragraph 0107, lines 4 – 6). The examiner is interpreting percentage of subscription is equivalent to viewing time of a program.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lazarus' invention to use subscription viewing rate to group consumers in view of Eldering. Doing so would provide advantages such as a means for effectively predict consumer behaviors in a market segment.

Conclusion

17.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

   a.   Schlack et al. US PGPub 2002/0129368 A1 discloses a system for profiling television viewers. The information regarding profiling television viewers is relevant material.

   b.   Tripp et al. US PGPub 2003/0004787 A1 discloses a system for identifying a set of individual for marketing. The information regarding identifying a set of individual for marketing is relevant material.

c.   Gorenstein US PGPub 2003/0009369 A1 discloses a system for customer

segmentation. The information regarding customer segmentation is relevant

material.

d.   Cary et al. US PGPub 2003/0046138 A1 discloses a system for assessing

demographic data. The information regarding assessing demographic data is

relevant material.

e.   Chappet US PGPub 2002/0174005 A1 discloses a system for assessing

business activities. The information regarding assessing business activities is

relevant material.

f.   Specter et al. US PGPub 2002/0147628 A1 discloses a system for

generating recommendation for consumer items. The information regarding

generating recommendation for consumer items is relevant material.

g.   Mascarenhas US PGPub 2002/0029162 A1 discloses a system for

creating classification for end users. The information regarding creating

classification for end users is relevant material.

h.   Koopersmith US PGPub 2001/0042002 A1 discloses a system for

communicating targeted information. The information regarding communicating

targeted information is relevant material.

i.   Hass et al. US PGPub 2003/0220773 A1 discloses a system for market

response modeling. The information regarding market response modeling is

relevant material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vei-Chung Liang whose telephone number is (571) 270-1984. The examiner can normally be reached on Mon.-Thursday, 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Coby can be reached on (571) 272-4017. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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November 6, 2007

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